

Chikungunya

For Service members and their Families

Important Facts

- Chikungunya is an illness transmitted to humans by the bite of an infected mosquito.
- Control disease transmission by reducing mosquito breeding areas: removing or turning over buckets, bottles, and other containers; discard old tires or drill drainage holes in containers that may collect water. Do not let water collect under spouts or faucets. Adjust tarps or other coverings to eliminate standing water.
- If you are experiencing symptoms as described below, seek medical attention and state that you have been to an area where chikungunya occurs.
- The Department of Defense (DoD) Insect Repellent System is the safest, most effective way to protect against biting insects that may carry disease.

What is chikungunya?

Chikungunya [chick'-en-GUN-yah] is a non-fatal illness caused by a virus that is spread by the bite of an infected mosquito. Its symptoms include severe joint pain (arthritis), fever and rash.

What causes chikungunya and how does it spread?

Chikungunya is caused by the chikungunya virus, which is found mainly in Africa and Asia. Chikungunya is spread by the bite of a mosquito. Humans are thought to be the major source, or "reservoir," of the chikungunya virus for mosquitoes. Mosquitoes transmit the disease by biting an infected person and then later biting someone else. An infected person cannot spread the infection directly to other people (i.e., it is not contagious). Avoid mosquito bites by using insect repellent and other protective measures, especially during the day.

How common is the chikungunya virus and who is at risk?

Anyone in an area where chikungunya is present can get the disease through the bite of an infected mosquito. The first recognized outbreak of chikungunya occurred in East Africa in 1952-1953. Soon thereafter, epidemics were noted in the Philippines (1954, 1956, and 1968), Thailand, Cambodia, Vietnam, India, Burma, and Sri Lanka. There have been outbreaks on the islands of the Indian Ocean, including Madagascar, Comoros, Mauritius, Reunion Island and Italy (2007).



Because humans act as the main source for the virus, chikungunya is most common in cities and towns. Epidemics are sustained by the human-mosquito-human transmission cycle.

The Aedes mosquitoes that spread chikungunya breed in containers that collect rainwater. Such containers are common around homes and include discarded tires, flowerpots, old oil drums, animal water troughs, water storage vessels, and plastic food containers. As little as one-half inch of rain water will support dozens of mosquitoes.

What steps can be taken during deployment to reduce mosquito breeding areas?

Uncontrolled mosquito breeding favors the spread of chikungunya and other mosquito-borne diseases, such as dengue. Remove or turn over buckets, bottles, and other containers; discard old tires or drill drainage holes in containers that may collect water. Do not let water collect under spouts or faucets. Adjust tarps or other coverings to eliminate standing water.

What are the symptoms of chikungunya?

Chikungunya usually starts suddenly with fever, chills, headache, nausea, vomiting, joint pain, and rash. "Chikungunya" (a native term from Tanzania) means "that which contorts or bends up." This refers to the stooped posture of patients who are afflicted with the severe joint pain that is the most common feature of this disease. Frequently, the infection causes no symptoms, especially in children. While complete recovery from chikungunya is usually expected, it may take up to a year or more for



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symptoms to clear up. Persistent joint pain may require pain medication and long-term anti-inflammatory therapy. People who get chikungunya are immune to future infection with the virus.

How soon after exposure do symptoms appear?

The time between the bite of a mosquito carrying the .chikungunya virus and the start of symptoms ranges from 1 to 12 days.

How do I know if I have chikungunya?

Chikungunya is diagnosed by blood tests. Since the symptoms of chikungunya are similar to dengue fever, it is important to be medically evaluated and have blood tests done, especially if you are in areas where both diseases are present.

What is the treatment for chikungunya?

There is no specific treatment for chikungunya; however, infected individuals may get some relief from pain medications and by getting plenty of rest. Infected persons should be isolated from mosquitoes as much as possible in order to avoid transmission of the virus to other people.

What can I do to avoid getting chikungunya?

There is no chikungunya virus vaccine approved for use in the United States. Therefore, prevention depends on avoiding mosquito bites when traveling to areas where chikungunya occurs. Eliminating mosquito breeding sites is another key preventive measure. To prevent mosquito bites, do the following:

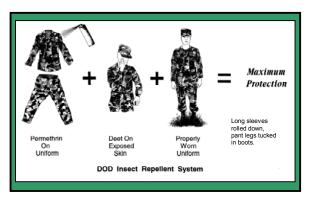
- When indoors, stay in air-conditioned or well-screened areas. Use bed nets if sleeping in areas that are not screened or air-conditioned.
- When outdoors during times that mosquitoes are biting, wear long-sleeved shirts, long pants, and use insect repellents that have been approved by the Environmental Protection Agency (EPA). They are safe and effective.
- Use the <u>DoD Insect Repellent System</u>: This system includes proper wear of the military field uniform (ACU, BDU, DCU) as a physical barrier to insects and the use of both skin and clothing repellents.

The DoD Insect Repellent System Steps:

(1) Wear permethrin treated uniforms. If not using uniforms pretreated by the manufacturer with permethrin, treat uniforms (except for Nomex uniforms such as flight suits) with permethrin clothing repellent and allow them to dry BEFORE putting them on. Do <u>not</u> treat pre-treated uniforms. Two self-treatment options are available. The first option is to use the Impregnation Kit (NSN 6840-01-345-0237) to treat one uniform. The treatment lasts for the life of the uniform (at least 50 washes). The second option is to use the aerosol can of permethrin (NSN 6840-01-278-1336). Each can treats one uniform, and the treatment lasts through 5-6 washes.

- (2) Wear the uniform properly. Roll down shirt sleeves. Blouse pants properly onto/into boots with the blousing cords drawn tight. Tuck undershirt into pants. These measures will help protect the skin from biting insects (such as mosquitoes).
- (3) Apply DEET to exposed skin. Apply a thin coat of long-lasting DEET insect repellent lotion (NSN 6840-01-284-3982) to all EXPOSED skin. One application lasts for up to 12 hours, depending on the climate and how much you perspire. Follow all label directions.

Other Methods for Protection against Insects



- Avoid insects. If possible, do not go outside during times that insects most frequently feed (bite).
- Sleep/rest under a permethrin treated bed net.
- Do not use after-shave lotion, cologne, perfume, or scented deodorants/soaps while in the field. The odors may attract insects.
- Wash and inspect your body for insects and their bites daily, or as often as the tactical situation permits.

Where Do I Get More Information?

Air Force Institute for Operational Health (AFIOH)

Phone: (888) 232-3764 http://www.brooks.af.mil/afioh/

DoD Deployment Health Clinical Center (DHCC)

Phone: (866) 559-1627 http://www.pdhealth.mil/ DoD Force Health Protection & Readiness (FHP&R)

Phone: (800) 497-6261 http://fhp.osd.mil

Navy Environmental Health Center (NEHC)

Phone: (757) 953-0700 http://www-nehc.med.navy.mil U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)

Phone: (800) 222-9698

http://chppm-www.apgea.army.mil

Armed Forces Pest Management Board

Phone: (301) 295-7476 http://www.afpmb.org

